ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

TRAINING COOPERATIVE PARTNERSHIP IN SUPPORT OF TERRESTRIAL, AQUATIC AND COASTAL ECOSYSTEM RESEARCH PROGRAM

General Information

Announcement Type:	Initial Announcement
Funding Instrument Type:	Cooperative Agreement
Funding Opportunity Number:	TBN25236
Posted Date:	
Due Date for Applications:	To be considered timely, applications must be received by 4:30 p.m. Pacific Standard Time, November 10, 2004.
Archive Date:	
Category of Funding Activity:	Environment
Expected Number of Awards:	One
Estimated Total Project Funding:	$975,000
Award Ceiling:	None
Award Floor:	$10,000
CFDA Number:	66.607 Training and Fellowships for the Environmental Protection Agency
Cost Sharing or Matching Requirement:	None

Eligible Applicants: Applicants must be eligible to receive federal assistance under the Clean Air Act, 42 U.S.C 7403 and the Clean Water Act, 33 U.S.C. 1254(g) and under CFR PART 30, “Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations”, and 40 CFR Part 45, “Training Assistance.”

Federal Agency Name:	U.S. Environmental Protection Agency Office of Research and Development National Health and Environmental Effects Laboratory Western Ecology Division Attn: Connie M. Hays, Acquisition Manager

200 SW 35th Street
Corvallis, OR 97333

Description: This funding opportunity is to develop a training program for postdoctoral, graduate and undergraduate students in environmental research at the WED laboratories in Corvallis, OR and in Newport, OR.

Agency Contact Person for Electronic Access Problems:

Connie Hays, Phone: 541-754-4504 Email: hays.connie@epa.gov

Link to Full Announcement:

http://www.epa.gov/wed/pages/opportunities/businessopportunities.htm

FULL TEXT OF ANNOUNCEMENT

I. Funding Opportunity Description

Title of Opportunity: Training Cooperative Partnership In Support of Terrestrial, Aquatic and Coastal Ecosystem Research Programs

A. Background:

1. The U.S. Environmental Protection Agency (EPA), National Health and Environmental Effects Research Laboratory, Western Ecology Division (WED), has initiated a major research program to study the effects of stressors on terrestrial, aquatic, and coastal ecosystems. The purpose of this research is to provide the scientific information, understanding, analyses and methods and protocols needed by states and local governments and various regulatory and management agencies to effectively protect the aquatic and terrestrial environment.

2. The scope of this research program includes:

   a. Research on the effects of pollutants and other anthropogenic stressors on terrestrial ecosystems, such as agroecosystems, forest ecosystems, and rangelands.

   b. Research and novel methods and procedures development for quantitatively describing the condition of aquatic, riparian and wetland resources and their response to stress.

   c. Research on the effects of anthropogenic and natural stressors in coastal watersheds and estuarine ecosystems.

3. As part of this program, WED seeks to establish a long term Training Cooperative Partnership with a leading research and teaching institution capable of managing an environmental training program. One cooperative agreement will be awarded to a single institution or a consortium of institutions from this solicitation. The purpose of this cooperative agreement is to stimulate interest among students in careers involving environmental research and to provide hands-on experience. It is envisioned that this training program will be modeled after the highly successful training arrangements which already exist at various US Universities and Colleges, with modifications to include active participation of EPA scientists as research advisors.

B. Funding Priorities/Focus:

1. This Request for Applications (RFA) is to develop a competitive Training Agreement between the National Health and Environmental Effects Research Laboratory/Western Ecology Division (NHEERL-WED) of the US Environmental Protection Agency (US EPA), and a University or College interested in the training of students in environmental sciences. The agreement will be administered by an organization within the successful

institution. The objectives are to administer and conduct the training of postdoctoral, pre-doctoral, and undergraduate scientists in areas of environmental research which are applicable to the mutual aims of the US EPA and the recipient institution of higher learning. The opportunity to gain research experience with senior scientists at one of the US EPA's premier environmental laboratories should enhance the effectiveness of students as they strive to become leaders within the scientific community.

2. The partnership between a successful institution and WED would be mutually beneficial to both parties in the development of opportunities that either may not be capable of achieving alone. Research experience with senior scientists at the WED/US EPA could also provide another facet to aid University faculty to achieve opportunities for longer term research not normally available in a solely academic environment. The Program will also contribute to the research progress of current, ongoing research by the scientists at WED/US EPA, and will substantially benefit the Office of Research and Development (EPA) to meet its desire for increased emphasis on the training of future scientists.

3. This program, to be known as the *National Health and Environmental Effects Research Laboratory/Western Ecology Division Environmental Research Training Program*, will be administered by an organization in a College or University, but proposals will be considered from a consortium of institutions desiring to participate in the training objectives in this agreement. The Agreement will support research training of graduate and undergraduate students and postdoctoral researchers from Universities and Colleges throughout the US. The training will be performed at the US EPA Environmental Health and Effects Research Laboratory, Western Ecology Laboratory in Corvallis, Oregon with senior EPA scientists on-site at WED in Corvallis, OR laboratories and/or field locations.

4. Basic Premises: The program will provide assistance to students for the purpose of facilitating education and training in the environmental and ecological sciences; and provide research for opportunities for Postdoctoral Research Associates, Graduate Research Assistants, and undergraduates. There will be substantial Federal involvement in this project, i.e., senior scientists at the US EPA will serve as research advisors, together with University faculty.

5. The principal end product of this agreement will be trained scientists holding degrees in appropriate environmental research fields. Other expected products will be:

    a. opportunities to develop publications in peer-reviewed journals, conference proceedings and books;

    b. attendance and presentation of data at national and international scientific meetings; and

    c. applying relevant scientific information to enhance the Agency's mission of health and environmental protection.

6. Types of Research Opportunities:

   a. Research activities:

      (1) The Western Ecology Division (WED) is one of four ecological effects divisions of the National Health and Environmental Effects Research Laboratory. The four divisions are distributed bio-geographically. WED's mission is:

         i To provide EPA with national scientific leadership for terrestrial and regional-scale ecology; and

         ii To develop the scientific basis for assessing the condition and response of ecological resources of the western United States and the Pacific Region.

      (2) The Division addresses scientific issues of major importance in formulating public policies, programs, and regulations to protect and manage ecological resources. WED scientists conduct research in a range of scientific disciplines, usually working in multi-disciplinary teams. In addition to their work at the Division's facilities and field sites, they collaborate with leading scientists at research institutions throughout the world. The research addresses the ecological processes that determine the response of biological resources to environmental change and to land and resource use. Priority is given to those ecological systems at greatest risk, with emphasis on the scientific uncertainties that most seriously impede ecological risk assessment.

      (3) WED's research approach comprises three aspects:

         i Seeking an understanding of the structure and function of ecological systems;

         ii Conducting holistic analyses of ecological phenomena at the ecosystem, landscape, and regional scales; and

         iii Developing novel approaches in solving environmental problems. Key scientific disciplines include: terrestrial biology, aquatic biology, marine biology, ecology, geography, statistics, soil science, plant biotechnology, genomics, wildlife biology, biogeochemistry, plant physiology, landscape ecology, and oceanography.

      (4) The Division seeks to advance scientific understanding through:

         i Fundamental research conducted in the laboratory and in specialized exposure chambers;

         ii Field studies;

         iii Modeling; and

         iv The analysis of large-scale environmental and ecological data sets.

b. Research facilities:

(1) WED's research facilities are located at Corvallis and Newport, Oregon. The main research complex is located on 14 acres in Corvallis, surrounded by the Oregon State University campus. It includes a variety of laboratories, plant and animal research facilities, ponds, a library, a computer center, and office buildings. The Willamette Research Station (WRS) comprises laboratories and field research facilities on a 10-acre site adjacent to the Willamette River in Corvallis, approximately 4 miles south of the main laboratory. The Pacific Coastal Ecology Branch carries out research in laboratory facilities at the Hatfield Marine Science Center, the marine campus of Oregon State University. The Center is located at Yaquina Bay on the Pacific Ocean at Newport, 55 miles west of Corvallis.

(2) Aquatic ecology research is conducted in laboratories in the main building, at the Willamette Research Station, and at numerous field locations. These facilities have state-of-the- art equipment including boats and other aquatic sampling platforms, sophisticated analytical chemistry capability, image enhancing approaches for microscopic identification of aquatic flora and fauna, robotic arms for microbial identification and population assessment, and various other items needed in modern the assessment of stream condition. In addition, the Jefferson Street Building provides offices, computer, and mapping facilities for the planning and design of water quality studies at various locations in the US.

(3) A terrestrial ecology laboratory on the WED campus includes several greenhouses of various sizes. These facilities provide the capability for research on effects of various stressors on plants, including (but not limited to):

i Effects of gaseous air pollution;

ii Effects of genetically engineered crops;

iii Effects of pesticides and toxic substances; and

iv Plant propagation and growth assessments.

(4) Also located at the main campus is a plant nursery site with an automated irrigation system, an experimental rhizotron for study of belowground processes, and a control center containing automated pollutant delivery-control and data acquisition-management systems for all the plant growth facilities. This site provides a unique setting for plant research to address environmental issues of local or national importance.

(5) The Pacific Coastal Ecology Branch is housed in a state-of-the-art laboratory building at a seaside location ideal for marine and estuarine research. Wet labs are available for a variety of experiments, including tests with exotic species and chronic pollutant exposures. Adjacent facilities of Oregon State University, Oregon Department of Fish and

Wildlife, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, and U.S. Fish and Wildlife Service offer opportunities for collaboration.

(6) WED operates a fully integrated and distributed UNIX and Microsoft NT ® based computer facility, including a large Geographic Information System, digitization hardware, and over 300 microcomputers and workstation terminals. These facilities permit precise analysis of spatially distributed landscape data (e.g., vegetation, soils). Agency and Oregon State University super-computers are also available to Division scientists through a high-speed communication network.

C. GPRA Goals, Objectives:

1. The specific Government Performance Results Act (GPRA) Goals, Objectives and Sub-objectives that relate to this RFA include:

GPRA Goal: 2 – Clean and Safe Water
Objective(s): 3 – Science/Research
Sub-objective(s): 2 – Research

GPRA Goal: 4 – Healthy Communities and Ecosystems
Objective(s): 5 – Science/Research
Sub-objective(s): 2 - Research

D. Statutory Authority for Award of Assistance:

1. This training assistance is authorized under the Clean Water Act, Section 104, and the Clean Air Act, Section 103.

II. <u>Award Information</u>

A. Amount and Range of Individual Award:

Estimated at $975,000 for the total project.

B. Number of Awards: One

C. Funding:

1. This cooperative agreement will have a performance period of three years. Annual funding will depend on the number of students participating in the program subject to the availability of funds, but could range up to $325,000 per year. Funding for students and their support including administrative costs will be made incrementally as students and their eligible costs are determined and a detailed budget for each student is developed. Since the number of students to be brought into the program is difficult to anticipate, the budget will be revised as student availability and government needs are determined.

D. Project Period: February 1, 2005 through January 31, 2008

E. Type of Award: The Agency anticipates the award of a cooperative agreement.

F. Anticipated Federal Involvement:

1. EPA and the Project Officer for this assistance agreement anticipate substantial involvement in the implementation of the research conducted under this training partnership. Senior scientists at WED will serve as research advisors, together with University faculty.

III. Eligibility Information

A. Eligible Applicants –

1. Statutory authority for EPA funding of this cooperative agreement is authorized in the Clean Air Act, 42 U.S.C. 7403 and the Clean Water Act, 33 U.S.C. 1254(g). Applicants must be eligible to receive federal assistance under one of these Acts as stated in 40 CFR Part 30, "Grants and Agreements with Institutions of Higher Education, Hospitals, and other Non-Profit Organizations", and under 40 CFR Part 45, "Training Assistance" at the time the application is submitted.

B. Cost Sharing –

1. Cost sharing, matching, or cost participation is not a requirement for this agreement.

IV. Application and Submission Information

A. Address to Request Application Package

1. The Application for Assistance package is located on the web at: http://www.epa.gov/wed/pages/opportunities/opportunitites.htm (download WED Application Kit for Assistance)

   Or

   Call, write or email Connie Hays, (541)754-4504, U.S. EPA, 200 SW 35th St., Corvallis, OR 97333; email hays.connie@epa.gov

B. Content and Form of Application

1. The application must be submitted in hard copy, with the original to include all original signatures and four copies.

2. Refer to the Checklist for Applications Over $100,000 (Items To Be Submitted) in the application packet for a list of forms and requirements to be submitted. All items on this checklist are required for a complete application.

3. The technical proposal should consist of three parts:

a. Proposed procedures for recruiting prospective postdoctoral, masters and PhD candidates who would be interested in conducting their research off campus, and undergraduates who would like to intern at WED-Corvallis.

b. Proposed procedures for scheduling on-campus class work and off-campus research activities so that the student would be minimally penalized for being a participant in the program.

c. Proposed procedures for monitoring the student progress in the program and reporting that progress to the EPA and University staff that share responsibilities for the student.

4. Further detail on each of the three parts is provided below.

a. Recruiting Procedures: Recruitment of students into the program will have a major effect on the success of the program and how it is viewed by both the University and the EPA. The procedures that are to be proposed must assure that the best possible students are selected using standard recruiting practices by Colleges and Universities including national advertisements. Recruitment of candidates should proceed according to Equal Employment Opportunities and Affirmative Action guidelines promulgated by the Universities. Strict criteria for academic excellence and research potential should be stated in the proposal to assure that all students have the opportunity to participate in the program.

b. Program Development: The training proposed in this agreement is modeled on the highly successful training arrangements that already exist between Federal agencies and various US Universities and Colleges, with modifications to include active participation of EPA scientists as research advisors. The proposed agreement will be similar to an existing cooperative training agreement which has been in place for over one year and has been very successful. Trainees in this program could have one EPA (WED-Corvallis) scientist and one University/College scientist as Research Advisors. Since other EPA funded programs are available to directly fund research of faculty, staff and students at academic institutions, monies are not available in this Training Cooperative Agreement to fund the travel and research of faculty and government advisors. Likewise funding for students who must travel between their institution and WED is not available.

5. Three types of trainees are anticipated in this program:

a. Undergraduate students, usually in their junior and senior years, who will gain research experience by working either as summer interns or on a part-time basis with EPA staff;

b. Graduate research assistants, registered for Masters or Ph.D. programs, who will receive training in environmental research and will undertake more substantial research projects in collaboration with EPA and University scientists, leading to the writing of a thesis or dissertation and research publications; and

c. Postdoctoral research associates who will work full-time with EPA (and perhaps University) scientists on specific federal research projects. All work will be performed in accordance with University and EPA policies including health, safety and quality assurance requirements. Salaries will be paid at the rate established by University policy for research assistants in other programs while the students are on duty at WED – Corvallis.

6. The training program benefits by having a sustained level of support for students at all levels of experience in laboratories equipped to perform environmental research. University and College faculty associated with this Training Agreement should have salaried appointments in academic positions (e.g., Departments of Botany and Plant Pathology, Microbiology, Fisheries and Wildlife, Forest Science, Geosciences, Statistics, Environmental Health, Agricultural and Resource Economics, Atmospheric Science, Marine Ecology, etc.). US EPA scientists associated with this agreement must have salaried positions at WED-Corvallis and hold the Ph-D degree in one of the relevant areas. Students presently in the existing Cooperative Agreement and are making satisfactory progress toward their degree will have the option of completing their program under this new Training Cooperative Agreement.

7. Procedures must be developed to deal with unsatisfactory student performance.

C. Submission Date, Time and Location

1. Applications must be received no later than 4:30pm PST November 10, 2004, as follows:

   Submit the original, signed application (and associated materials) to the following address:

   U.S. Environmental Protection Agency
   Grants Operations Branch (3903R)
   1200 Pennsylvania Ave., N.W.
   Washington DC 20460

2. In addition, submit 2 copies of the assistance application and associated materials to:

   Priscilla Hoobler
   U.S. Environmental Protection Agency
   NHEERL/WED
   200 SW 35th Street
   Corvallis, OR 97333

   Ms. Hoobler can be contacted at:

   Phone: (541)754-4389
   Fax: (541)754-4716
   Email: hoobler.priscilla@epa.gov

D. Funding Restrictions

1. Funds in this agreement may not be used to pay for international travel of pre-doctoral trainees. International travel for post-doctoral trainees will be approved by the Project Officer only in rare, exceptional cases. As used here, international travel does not include travel to Canada or Mexico.

2. This award will contain no funds for university research advisors or federal employees.

E. Amendments

1. Amendments will be posted on the Western Ecology Division Website and the due date for applications will be extended if deemed appropriate.

V. Application Review Information

A. Criteria:

1. WED-Corvallis anticipates funding only one cooperative agreement from a single institution or a consortium of institutions. The location of the institution(s) relative to WED-Corvallis will not be considered as part of this evaluation criteria, and it is not required that the institution be in Oregon or near WED-Corvallis. Selection of the proposal for funding will be based on external and internal reviews. Cost sharing is not required and will not be considered in this evaluation.

2. Criteria that will be used to score the proposals are as follows:

    a. Proposed approach for partnership with WED-Corvallis and collaborative training of students (Post doctoral, graduate, and undergraduate) (15 points);

    b. Proposed approach for recruiting students interested in developing a career at the graduate level in environmental research (15 points);

    c. Proposed approach for developing model student programs to balance on-campus activities while leaving sufficient research time (15 points);

    d. Institutional expertise, prior experience, and capabilities in managing training programs in the relevant research areas that are needed at WED-Corvallis (15 points);

e. Understanding of the management needs for this program including securing students, placement into the program, student progress review and program review (10 points);

f. Understanding of environmental problems, ecological conditions an defects of scale as they relate to research training (10 points);

g. Scientific and educational merits, innovativeness and relevance to the research training mechanism proposed (10 points); and

h. Cost effectiveness of the proposed budget structure (10 points).

B. Review and Selection Process

1. Evaluation Process**:** The administrative and relevancy reviews will be conducted by EPA personnel who are not a part of the technical review panel. The technical review panel shall consist of at least one internal EPA reviewer and at least two non-EPA (extramural) reviewers who are able to demonstrate technical expertise and a lack of any conflict of interest**.**

2. Extramural review of the proposals will be conducted by at least two non-EPA scientists/educators. Extramural reviews will focus on the scientific and educational merit of the proposal and will not focus on any particular criteria. Reviewers will be required to certify that no conflict of interest or its appearance is created through the individual's participation in the review process and that the individual will not benefit, personally or financially, either directly or indirectly, from any aspect of participation in the review process. Judgments regarding collaboration with WED-Corvallis and relevance to EPA research goals are considered "inherently government functions" and will not be evaluated by the extramural reviewers.

3. Internal reviews will be conducted by at least one reviewer associated with previous training cooperative agreements. This review will consider all evaluation criteria.

4. All reviewers will prepare a written evaluation and give a numerical score for each proposal. Evaluations will be submitted to the Project Officer who will make the final recommendation for award.

5. Source Selection: EPA will make a selection of the applicant for award based upon the rankings of the technical review panel and the other factors discussed above. The Decision Official is an Office of Research and Development (ORD) manager who will determine which applicant should receive the award.

6. Rejection Factors: Applications may be rejected because they fail to comply with the administrative requirements of the RFA, they are found to lack relevancy, they are judged technically unacceptable, or they are not deemed suitable for award due to other factors (if identified). EPA reserves the right to reject all proposals or applications and make no awards.

7. Disputes: Disputes will be resolved pursuant to the process described in 40 CFR 30.63 and Part 31, subpart F.

C. Anticipated Announcement and Award Dates

1. Award of this cooperative training agreement is anticipated by February, 2005.

VI. Award Administration Information

A. Award Notices –

1. Notice of Award will be made in writing by an official in the EPA Grants Administration Division. Preliminary selection by the Decision Official in the Office of Research and Development does not guarantee an award will be made. Applicants are cautioned that only a grants officer can bind the Government to the expenditure of funds. No commitment on the part of EPA should be inferred from technical or budgetary discussions with an EPA Program Official. A Principal Investigator or organization that makes financial or personnel commitments in the absences of a grant or cooperative agreement signed by the EPA Grants Award Official does so at their own risk.

B. Administrative and National Policy Requirements

1. Regulations and OMB Coverage:

    a. Grants and agreements with institutions of higher education, hospitals and other non-profit organizations are subject to 40 CFR Parts 30 and 40 and OMB Circular A-122 for non-profits and A-21 for institutions of higher education.

2. Programmatic Terms and Conditions:

    a. Quality Assurance Plan - Research performed by student researchers under this Training Agreement are required to receive the same level of quality assurance approval and review as any other US EPA funded research activity. The Research Advisors will be responsible for the review and actions appropriate for the quality assurance requirements, and coordinating WED audit procedures. Guidance for preparing the necessary individual quality assurance plans is available from the WED Quality Assurance Officer, US Environmental Protection Agency, 200 SW 35th Street, Corvallis, OR 97333.

    b. EPA and the Project Officer for this assistance agreement anticipate substantial involvement in the implementation of the research conducted under this training partnership. Senior scientists at WED will serve as research advisors, together with University faculty.

C. Reporting

1. Program Monitoring and Reporting: Student progress should be reviewed at regular intervals. There are a variety of ways this could be done, but possibly

student progress could be monitored principally by the student's Advisory Committee, the WED and University Research Advisors and the EPA Project Officer responsible for this Agreement. On an annual basis, the EPA Research Advisor will provide the Project Officer (a) a letter evaluating progress, and (b) each postdoctoral and graduate student will prepare a 1-2 page Progress Report. Postdoctoral and Graduate students will also make at least one oral presentation to the University and WED scientific staff during their training program, describing their research accomplishments. Progress of Undergraduates could be assessed by EPA project leaders and faculty cooperators (as appropriate), who will provide a short (about 1 page) report each 6 months to the Project Officer describing the training given and the progress of each student.

2. Programmatic and Administrative Reports will also include:

   a. Semi-annual progress and reports on student progress and any issues are to be prepared by the Principal Investigator. These reports are due within six months after the award and every six months thereafter.

   b. Student participation, graduations, papers published in peer reviewed journals, awards received, etc.

   c. Annual reports summarizing progress and findings determined in the program assessment. Develop plans for the coming year and note improvements needed.

   d. Semi-annual financial reports for each student's budget.

VII. Agency Contacts

A. The primary agency contact for this RFA is Ms. Priscilla Hoobler at:

U.S. Environmental Protection Agency
NHEERL/WED
200 SW 35th Street
Corvallis, OR 97333
Phone: (541)754-4389
Fax: (541)754-4716
hoobler.priscilla@epa.gov

B. If unable to reach Ms. Hoobler, contact Ms. Connie Hays at:

U.S. Environmental Protection Agency
NHEERL/WED
200 SW 35th Street
Corvallis, OR 97333
Phone: (541)754-4504
Fax: (541)754-4518
hays.connie@epa.gov

VIII. Other Information

A. **Additional information** about WED-Corvallis's research programs and scientific staff can be seen at http://www.epa.gov/wed/.